



NITE-TIMES NEWS

CHICAGO AREA TIMEX USERS GROUP

Chicago Area Timex Users Group
Volume 8, Number 2

Downers Grove, Illinois
March/April 1994

ROUTINES	MEMORY MAP	ADDRESS
CATUG Club Officers		1
NITE-TIMES Information		2
Contributors to this Issue		2
Club Meetings		2
Treasury Notes		2
Secretary's NotePad		2
INPUT/OUTPUT		4
GATOR's Twisted Pair (Our BBS)		4
Items for SALE through the Club		4
Special Deals and Buys		5
Articles:		
Undocumented feature of QLuMSi DOS v4.30 ..		4
KEYBOARD MANIA - Part 7		6
Ads		9
Can-U-C-3D?		11

C.A.T.U.G. CLUB OFFICERS

Here is the list of 1994 club officers and how to contact them. The club has two strong SIGS, SPECTRUM/TS2068 and QL. If you have questions about either of these fine machines, or even the ZX81/TS1000/TS1500, call one of the officers. C=312, S=708.

POSITION	NAME	PHONE	PRIMARY FUNCTION
President	Nazir Pashtoon	S439-1679	The buck stops here...
Vice-President	Steve Cooper	S968-3553	Meeting Planning, etc.
Secretary	Larry Sauter	C763-5383	Records and Reporting
Treasurer	Frank Mills	S544-1918	Dues and Purchasing
Editor	Bob Swoger	S576-8068	Newsletter, BBS, etc.

Copyright (C)1994 Chicago Area Timex Users Group, Streamwood, IL

NITE-TIMES NEWS

Nite-Times Information

The Nite-Times News is the newsletter of the Chicago Area Timex Users Group. For an annual fee of \$12.00 you can become a CATUG member and receive six newsletters each year. Write your check payable to:

FRANK MILLS
417 S 47th AVE
BELLWOOD IL 60104

The Chicago Area Timex Users Group is pleased to exchange newsletters with other Timex and Sinclair supporting user groups at no charge. Send all newsletter requests to:

CATUG EDITOR BOB SWOGER
613 PARKSIDE CIRCLE
STREAMWOOD IL 60107-1647

If you desire to reprint any articles that appear here, please provide credit to the author and this newsletter.

We encourage your user group to copy this newsletter and distribute it at your regular meetings to your members free of any charge as we believe that this will encourage better meeting attendance. If you are a user group that feels as we do, please let us know in your newsletter so that we might do this for our members and keep our attendance up.

Articles originating from our group may be downloaded from our BBS and reprinted.

CONTRIBUTORS TO THIS ISSUE

Cedric Bastiaans
Frank Mills
Larry Sauter
Bob Swoger, K9WVY

CLUB MEETINGS

The Chicago Area Timex Users Group meets on the THIRD Saturday of each month at the home of our meeting coordinator

Steve Cooper in Downers Grove, Illinois from 1:00 to 5:00 PM. Steve's home is lovingly called the CLUB HOUSE and is located at 1300 Maple Street in Downers Grove just 2 blocks southwest of the Downers Grove Public Library. Steve should always be contacted evenings at 708/968-3553 to confirm the meeting schedule.

TREASURY NOTES

The balance as of May 1, 1994 is \$364.43 Our current paid membership stands at 19.

Frank Mills, Treasurer
Chicago Area Timex Users Group

SECRETARY'S NotePad

March 19, 1994

Meeting began at approximately 2:30 P.M. Members present: Nazir Pashtoon, Steve Cooper, Frank Mills, Larry Sauter, Abed Kahale, Jeff De Courtney, Cy Herre, John Donaldson, and Bob Swoger.

Discussion about what ZXir QLive Alive! would do to inform members of their membership dues status. Adding an expiration date to the label for mailing, and in the software (mailing list), of the amount of time left of the subscription for the newsletter.

A disc was received from Al Feng called "QLamber". John Donaldson had an unfavorable review of the program because of a bug caused by incorrect operating system compatibility.

Nazir brought up the possibility of duplicating the Larry Kenny disc drive interface, and the difficulty of getting parts that will work with repeatability in a small production run.

A discussion about a person by the name of Jelen who replaced

the components on the 2068 with CMOS components including the SCLD chip with CMOS parts to promote efficiency of operation that Abed received in a letter from Don Lambert.

The same fellow said he tried to solve the QL heat problem which Nazir Pashtoon states is a phony problem that has been around since the inception of the QL machine by some of the development engineers who couldn't explain possible part incompatibility problems that the machine was plagued with, because there are really two different problems mistakenly lumped together as a heat problem.

There was further discussion about tacking our newsletter onto ZXir QLive Alive! to reduce expenses of mailing and printing and possibly getting more newsletter readers and helping ZXir QLive Alive!, stay alive because of dwindling revenue in ZQA! Maybe there is a need for a selection between ordering all the issues in a year as one volume. or getting issues from the date of subscription to one year after ordering. Maybe ZQA! should run the subscription like UPDATE! runs their subscriptions, ending in a fiscal year.

A further discussion about our newsletter being slightly delinquent in getting issues out in time. Maybe we should put a list of the members who have paid up their dues for the newsletter to promote punctuality of paid up members.

A discussion about our newsletter being the first one to start off the tacking on to ZXir QLive Alive! newsletter and maybe some of the other newsletters will pick up the practice. We should mail a letter to all the other groups to see if they could see the convenience of consolidating the mailing of newsletters.

A vote was taken and passed with one NAY vote by Nazir Pashtoon to tack on the newsletter to ZQA!. A motion was taken to adjourn the meeting, so till next month.

April 23, 1994

Meeting began at approximately 2:30 P.M. Members present were: Jeff De Courtney, Cy Herre, Larry Sauter, Steve Cooper, Bob Swoger, Abed Kahale, Nazir Pashtoon, Frank Mills.

A misunderstanding about the merger (tack on) of Nite-Times News and ZXir QLive Alive! was discussed and Bob explained that he did not mean a merger of the two newsletter. Nazir now understands that a merger was not intended and only a mailing of our newsletter in the same envelope with ZXir QLive Alive!

To decrease postage expenses and printing time and expenses was the intention. Do we really save money or not? Just the Nite-Times News gets mailed to the out-of-town people. Other newsletters don't get mailed to the out-of-town members. If you want those other out-of-town newsletters, you have to come to the meetings at Steve Cooper's home.

Gary Lessenberry may be returning in the not too distant future and settling down in the Chicago area. We will always welcome a former member and contributor to the group and also former president of the Chicago Area Timex Users Group.

Steve's monitor blew a fuse and after putting a light bulb in series with the line cord the short cleared itself and all is well with his monitor after a make shift fuse was made by Bob.

We no longer are receiving newsletters from NESQLUG, ISTUG, SMUG, Capital Area NY.

We will not be mailing our newsletter to these groups because we haven't received a newsletter from them for over a year.

John Donaldson sent Abed a copy of the QL public domain library's contents. Paul Holmgren through Don Lambert sent 9 QL discs to Abed to be sold as public domain for \$9.00. The proceeds less expenses to be given to ZXir QLive Alive! Abed mailed the disks to John Donaldson who is now the QL librarian of ZQA!

Don Lambert sent Abed a package and a list of SNUG membership. Abed was given the task of sending out postcards to the SNUG members giving them a choice to receive UPDATE!, IQLR, T/SNUG, donate to T/SNUG, or get a prorated check. (Or, get Hustler magazine. Ha Ha Ha!) The meeting was adjourned. See you next month.

Larry Sauter, Secretary
Chicago Area Timex Users Group

INPUT/OUTPUT

~~~~~  
Dave Lebowitz writes: Enjoyed reading the copies of Nite-Times News you forwarded to me recently. Even though I'm not an active CATUG member (or even an active T/S user) anymore, I still enjoy reading about what's going on.

I was struck by a comment in the January/February issue. The Secretary's NotePad column mentioned a "new" word processor called Spectral Writer and extolled its virtues. I thought I'd provide a bit of background on that product for those who might not know about it.

Spectral Writer was part of the bundled software that came with the Rotronics Wafadrive an English product that was designed to be used with the Spectrum. The Wafadrive was a two drive system that utilized

very small tape cassettes. I still own two of these devices and had a lot of fun using them - although they did tend to be a bit unreliable as one could easily lose data due to stretching of the tapes.

I still have the original Spectral Writer tape cassettes. Not sure if they work since it's been years since I had the Rotronics drives in use. What might be of interest to some of the group members who are interested in the word processor is that I have the original User Manual and would be willing to send it to whoever wants it if they'll let me know that they would like to have it. Best regards....

## GATOR's TWISTED PAIR

~~~~~  
!!! R E M E M B E R !!!
We have a 24 hour BBS and encourage you to exchange mail and contribute to the Download Section. Use it and have fun!

Call the BBS at 708-632-5558 and register. On your next call your security level will be increased to 5 on this RBBS and you will be able to have most privileges.

Bob Swoger, SYSOP
Chicago Area Timex Users Group

ITEMS FOR SALE THROUGH THE CLUB

~~~~~  
If you are a LarKen LKDOS owner and would like a SPECTRUM V2 kit for your system we will supply an EPROM, socket and 74HCT32 for \$12 which includes shipping and handling. The install instructions are in your LarKen manual. We shall not be responsible for your install job. AERCO owners need only the SPECTRUM EPROM for \$10

=====

If you have a mismatch between you LarKen DOS EPROM and your Western Digital Controller chip, we will send you the correct one for free on behalf of our friends Rod Gowen of RMG and Larry Kenny of LarKen. You



should be using L3 EPROMs with WD1770 controller chips or L3F EPROMs with WD1772 controller chips. Check it out! Call in requests to Bob Swoger at W708-576-8068 H708-837-7957

## SPECIAL DEALS AND BUYS

~~~~~  
NAP_Ware (Nazir A. Pashtoon's new endeavor) announces the availability of all Timex or QL PAL (Programmable Array Logic) chips. If interested, call him evenings on 708-439-1679.

ARTICLES

~~~~~  
**A Previously Undocumented Feature in QLuMSi DOS v4.30**  
by Al Feng

As many of you know, Version 4 of the QLuMSi program has added the following commands:

```
CD \  
CD \[sub-DIRectory_prefix]  
MD \[sub-DIRectory_prefix]  
RD \[sub-DIRectory_prefix]
```

Most people with a QXL, GOLD CARD and FLP/RAM chip should welcome the ability to access sub-DIRectories.

The problem arises when you decide you know longer wish to have the sub-DIRectory on the medium. It just doesn't seem that easy to get rid of.

Maybe it was obvious to the people at MIRACLE, or maybe I didn't read the documentation well enough that I received with the FLP/RAM (and, this is true for GOLD CARD documentation, as far as I can tell), but the only way that I could figure out how to REMOVE a sub-DIRectory was with the WDElete command; and, this I determined by accident!

Now, at first, I would WDElete through the entire directory. This was, often, tedious.

Trying to WDElete a specific (empty) sub-DIRectory proved fruitless.

At some point, I either had a typo or a serendipitous moment, and I realized that I might be able to input an incomplete filename\_string and get the desired effect.

The 'RD \' command, therefore, utilizes QDOS's WDEL command, and the user defines the sub-DIRectory by direct input and can be used within QLuMSi (v4.30) for designating a specific string.

For example, if you were to input:

```
RD \.doc
```

QLuMSi would then ask you if you wanted to WDElete all the \_doc files. QLuMSi will also prompt you for other "\_do()" files. Obviously, some caution must be employed by the user!

Both the "full" version of the QLuMSi program as well as version 4 of the COMMAND\_COM program require that your QL has the MAKE\_DIR command available to it in addition to the traditional TK2\_EXT code.

To accommodate those who either do not have a QXL, GOLD CARD, or FLP/RAM chip, a version of the new QLuMSi program has been included which does NOT require MAKE\_DIR (hence, will not allow you to "MAKE (a sub-)DIRectory" on a medium. This is the QLuMSi\_COMn program you will find on your master disk (use BOOT\_ALT).

Send comments/questions/queries to:

Al Feng  
914 Rio Vista Circle SW  
Albuquerque, NM 87105  
U.S.A.

### XIII. A POTPOURRI OF ITEMS OF INTEREST

#### XIII.1 YET ANOTHER SURPLUS TI KEYBOARD

At the time that I'm writing this (end of May '86), Radio Shack has yet another special purchase item (Cat. No. 277-1023), again a surplus TI keyboard. This is reported to be a keyboard for the TI 99/4 (without the addition A). Even though it has the same matrix (Fig.9 of Part 3) as the other TI KB's, and it will fit inside the 2068 case, whether it has the cutouts of Figure 14 or 23, it would not be feasible to modify for use with our TS2068! The reason: it is a membrane type keyboard! A real pity, since this item only costs \$3.95...

You couldn't even consider this keyboard for spare parts; keyswitches and keytops are different from those of any of the three keyboard versions I know of. Maybe some day, someone can come up with the proper translation circuitry to transform the TI-99/4A matrix to the TS2068 matrix and put it on an EPROM. However, we may run into a problem with certain simultaneous key-stroke commands, such as the the combination G and H keys to restart "Horace Goes Ski-ing".

#### XIII.2 THE BALSAMWOOD MASK

Another item, which appears to puzzle some of you, is the mask, which covers up the ugly holes around the TI KB you have put in. Figure 24 shows an exploded view of the 11 components. Dimensions are given in MILLIMETRES (mm), but these are ONLY MEANT AS A GUIDE. Before cutting each part, check the sizes you actually need for your particular KB. There are some dimensional differences between KB's!

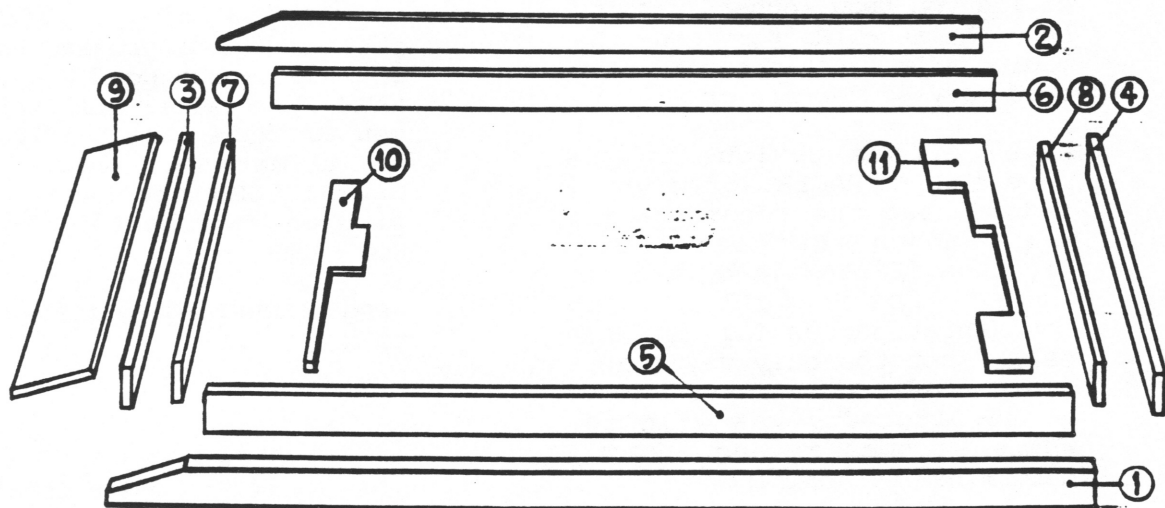
The modified keyboard should be in place.

Cut the 1/8 inch balsawood ONLY with a #11 Xacto blade. Don't use any type of saw!

Use a fast-cure two-component Epoxy adhesive to stick the wood parts to the metal mounting brackets.

Use Elmer's Professional Carpenter's Wood Glue to glue wood to wood.

USE WAX PAPER BETWEEN THE MASK AND THE COMPUTER CASE, to prevent it from sticking together.

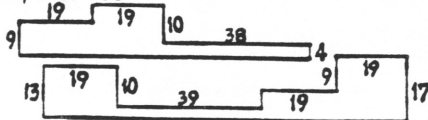


1=2= 260 x 10 x 240  
 3=4= 102 x 10  
 5=6= 234 x 11  
 7=8= 96 x 11

9= 102 x 22, shape to fit

10= 76 long;

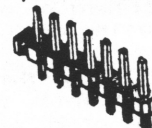
11= 96 long;



USE 1/8 INCH BALSAMWOOD THROUGHOUT  
 DIMENSIONS IN mm,  
 but are approx.

**FIGURE 24**

It seems that some people have a problem locating these and it might help if they knew what these components look like. Well, here is a picture of a 7-pin header strip.



XIII.4 THE TI KEYBOARD "MAKE-OVER"  
Figure 25 on the left shows a full-size photograph of a completed keyboard with all of the printed keytops as discussed in section XI.3 of Part 5.

Compare these with the original keyboard of your TS2068 and see if it doesn't make a lot more sense. I suggest that you read sections XI.1.1 through XI.1.5 again so as to fully understand my philosophy.

Another tip: in order to make for surprisingly durable keytops, using the printed labels, it is important that you use a good brand clear spray, applied in many layers. I have had good luck with Red Devil High Gloss Clear Lacquer. It is an extra fast drying spray and has an adjustable nozzle. Adjust it for a HORIZONTAL spray pattern.

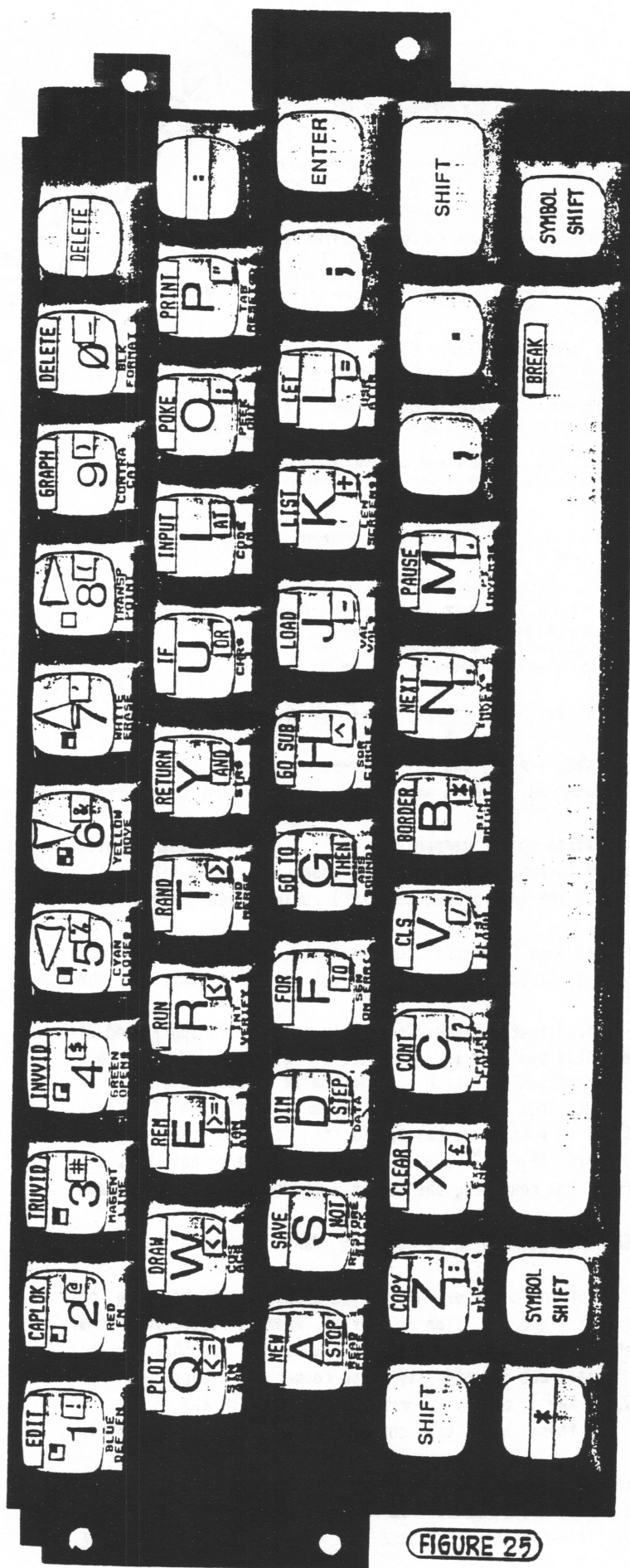
Never spray the keytops while they are in place. Remove them, make sure that the labels have been properly burnished and align the keys on a piece of sturdy corrugated cardboard in 5 rows, leaving about one keytop width all around each key. USE DOUBLE-ADHESIVE TAPE to prevent the keys from shifting about.

Spray in a dustfree environment and spray in slightly overlapping vertical movements.

Turn the cardboard substrate 90 degrees and spray again. Repeat this two more times and allow to dry for several hours. Repeat the entire process one more time. When you're all done, the top surface of each key has had 8 coats and each vertical surface has had 2. Right?

This concludes my Keyboard Mania series. I hope that it gave you the impetus to try your hand on a worthwhile hardware project! I would appreciate hearing from you. Good luck!

© C. & Bastiaans





Dear Cedric,

4-30-86

Have enjoyed your article Keyboard Mania - especially part 3. In fact I just received my TI keyboard. And in reviewing your instructions I find some problems.

My keyboard is #1039019-1, but does not have a "recessed" PCB nor any mention of a manufacture. Further, I find the section on cutting confusing.

If I hold the kbwd w/ the ribbon cable on top (i.e. facing up) I run into some problems. Sw. 45 better be jumpered or I'll lose other keys. Sw. 11 has 2 solder pads and 2 lines in and out. Which "bottom trace" - left, right or both? "Upper trace" on both sides - do you mean both traces?

Sw. 32 has 3 pads - 2 side by side and a 3rd off to the side. Which pad is the top pad? Sw. 22 ditto. Sw. 42 only has one trace coming off the bottom pad (assuming the kbwd is oriented correctly). How can one cut one trace on both sides? Sw. 43 only has one bottom trace and it is the major one!

Sw. 35's upper pad is linked to Sw. 23. Makes me think I have the kbwd oriented wrong. But if I rotate it then the ribbon cable is on the bottom, not the top.

Almost all the other switches have similar problem. Further, your drawing of the TI matrix has the Alpha Lock on top - my kbwd has it on the bottom.

I'll not cut until I get the next issue of LIST, but I think that you need to clarify your instructions a bit more - especially if there are more than one kind of keyboard out there. Looking forward to your reply - or mention of it in the article, etc.

Dear L.L.

L.L.

In Page A of Part 3 I have clearly identified TWO Texas Instruments TI-99/4A Keyboards, both of foreign make. US law requires that all imported goods be properly identified as to the country of manufacture.

Therefore, if your TI keyboard does not have any such indication, it simply means that it was made here in the USA.

It is very unfortunate that your keyboard shows the same 1039019-1 number as the ALPS-made KB, which has - contrary to your KB - a recessed PCB.

More than 2 1/2 months ago, I wrote to Texas Instruments for clarification on all versions of their TI-99/4A keyboard, even though I had no intention of trying to modify ALL of such versions for inclusion in the TS 2068 computer case. After all, who has the time or the money for such a mammoth project. I just wanted the information so that I could advise people with questions, just like you. TI has elected not to answer my letter.

Anyway, it should be clear that the trace cutting instructions given in page C of Part 3 do not apply to your particular KB. I clearly indicated in line 11 of page A, Part 3, that the procedures to be described were only for the KB in question, the ALPS KB, made in Japan, with a recessed PCB.

No wonder then, that you could not make head nor tail of my trace cutting instructions. Once again, they don't apply! And I can certainly not comment on the descriptions with the illustrations that you gave in your letter. All I can say is, that they have also no relation to the SE-JIN KB (made in Korea), full instructions of which will follow at a later date.

As to your remark about the matrix drawing showing the Alpha Lock on the top. The matrix is a SCHEMATIC depiction of wiring, printed circuit or point-to-point. It is drawn for maximum CLARITY and in most cases has little to do with the physical layout of the components. Look at the keys in the matrix, marked /,=,;,EN,SP,FN,CT and SH. These too are not depicted according to their physical layout; and you can maybe imagine yourself how confusing the matrix would have become, if indeed they had been!

Concluding, there is nothing for me to add to the already VERY CLEAR instructions in my Keyboard Mania series. They just don't apply to your keyboard. I'm sorry.

All I can do, is point out to you that with the help of Figures 9 and 10 on Page B of Part 3, you should really be able to find out which traces to cut and where to put jumpers. Figure 9 shows you the situation on your KB, whereas Figure 10 shows you what it should become. Since you appear to have some misconceptions about matrices, maybe I should tell you that if on Figure 9, I have indicated that key Z is connected to key A, that it need not in actuality be so connected! Depending on how the traces on the KB are laid out, key Z may be connected to key Q, or key I, or key O, or key P, or key ; or key / or it may indeed be connected to key A! What REALLY matters is that all of these keys are on one side of their contacts, ULTIMATELY CONNECTED to pin 8T of the 15-pin ribbon connector!

A final word: you don't have to worry about the 29 keys depicted in thin blocks in Figure 10; these are already properly connected. However, sometimes one or more of these keys get inadvertently disconnected from their address or KBD lines, because of the trace cuts necessary for the matrix modifications of the other keys! A jumper to the appropriate point(s) will correct such situations.

Thank you for your interest in my article series and I hope that you will persist and eventually solve the matrix puzzle and build the TI KB into your 2068. It is really worth the trouble... -Cedric-

# ADS

~~~~~  
 FOR SALE 94/06/03
 %%%
 SWTPC 6809 system. Includes
 Soroc IQ-120 terminal, 48K RAM,
 dual 5.25" floppies, 1200-baud
 modem, lotsa boards, software
 and accessories.
 Dave Spensley
 davesp@comm.mot.com

WANTED 5/20/94
 %%%
 Collage Complete Microsoft
 Windows or any screen grab
 program for DOS based
 applications. If you have or
 know of anyone who has this
 type of software, contact me
 PLEASE! Ann Jenkin 708-538-3598

FOR FREE 940217
 %%%
 We have a number of 30", 46",
 and 60" base station cabinets.
 There are also a dozen 70" C+
 cabinets in the warehouse. Is
 there a way to advertise this
 stuff to the engineering
 community for company or
 personal use. It's a shame to
 send them to the scrap metal
 dealer. Kampa-CLMS13 Dick

FOR SALE 940101
 %%%
 MIRACLE 512K EXPANDERAM ... \$75
 TRUMP FLP/RAM \$35
 Al Feng (505) 843-8414
 914 Rio Vista Circle SW
 Albuquerque, NM 87105

FOR SALE 11/1/93
 %%%
 Macintosh IICx with 80 MB HD
 8 MB RAM extended keyboard, ms
 Apple 13" color monitor, 2400
 baud modem.\$1500 or best.
 Call Mike 708-223-9659

FOR SALE 11/1/93
 %%%
 Apple 14" RGB color monitor &
 Laserwriter LS printer both one
 year old. Call Dana 708-383-5363

FOR SALE 11/1/93
 %%%
 386DX PC 33 MHz w/4M RAM 200MHD
 123" Sony color monitor, SVGA

hi-res graphics card, 5.25" &
 3.5" floppies, kbd, mouse, DOS,
 Windows, S/W\$1200 OBO
 Call 312-549-5175

FOR SALE 11/1/93
 %%%
 386DX 25 MHz IBM compatible
 w/2M RAM 100MHD, internal modem
 SVGA monitor, S/W & Panasonic
 printer.\$950
 Call 708-963-3636

FOR SALE 11/1/93
 %%%
 486 AST Bravo 50 MHz w/4M RAM
 120MHD 1.2/1.4 FD SVGA monitor
 .28 pitch SVGA card, mouse, DOS
 6.0, Windows 3.1 New- \$1600 OBO
 Call 708-776-1870

FOR SALE 11/1/93
 %%%
 386DX w/1M RAM 104MHD 1.2/1.4FD
 SVGA card w/1M DRAM minitower
 case mouse DOS 6.0\$900 OBO
 Call 708-776-1870

FOR SALE 11/1/93
 %%%
 Ten-Tec Argonaut 509 QRP xcvr,
 PS, filter calibrator & manual.
\$450 OBO
 Hy-Gain TH3-Jr Tri-band Antenna
 balun\$200 OBO
 CushCraft Ringo A-2 2mtr Ant
 \$25 Call Dave 708-991-6810 eves

FOR SALE 11/1/93
 %%%
 RAM upgrades for MAC Four 1 Meg
 Simms for sale. \$29
 Call Chris 708-519-0700

FOR SALE 940304
 %%%
 SINCE I GOT IT AT A GOOD PRICE,
 I'LL BE GLAD TO GIVE IT UP AT
 A GOOD PRICE. INDIVIDUAL PARTS
 OR ALL TOGETHER. YOUR CHOICE.
 NEW AMIGA 500 IN BOX ALL DOCS.
\$250
 EXTRA DISK DRIVE\$25
 EXTRA 512K RAM CARD\$25
 AMIGA MONITOR AND CABLE ...\$150
 1200 BD MODEM\$20
 APPLE CARTRIDGE WITH ROMs . \$200
 MIX AND MATCH, MAKE ME AN OFFER
 CALL BRUNO RUSSO 708-587-7140

Wanted: 940304
 %%%
 FOR CoCo 2 only Universal Video
 Driver for Composite Video;
 Disk Drive O 5.25" Floppy
 Disk Drive Controller w/ cable;
 RS-232 "Y" cable; Any ROM
 cartridge programs; Any
 cassette programs; Any TRS-80
 CoCo books other than Color
 BASIC and Extended BASIC books.
 Larry Sharpe
 PO BOX 62156
 CINCINNATI OH 45262-0156

FOR SALE 940304
 %%%
 1. Os-9 C-Compiler.....\$20
 2. Os-9 Level 11.....\$10
 3. Color Profile.....\$10
 4. Os-9 Level I
 with Basic09*\$10
 5. Basic09 Tour Guide Book
 FREE with 2 or 4 above.
 6. Complete Rainbow Guide to
 OS-9 Book
 ...FREE with 2 or 4 above.
 * Item #4 contains vs. 01.01.00
 & vs. 02.00.00
 Tandy Cat. no's. 26-3030
 & 700-2331

CAUTION: "YOU" pay all mailing
 costs. Inquiries should indicate
 need for either or both of the
 books.

COCO HARDWARE FOR SALE:

1. COCOIII w/Tandy 512K RAM &
 w/manual & ECB User's Guide if
 desired.....\$75
 2. COCOII 64K RAM ECB\$10
 These Color Computers will
 require from \$10 to \$15 U.S.
 Postage for 1st Class, insured.
 UPS via truck (10 days) is
 somewhat less and all packages
 are supposed to be covered for
 up to \$100 automatically.

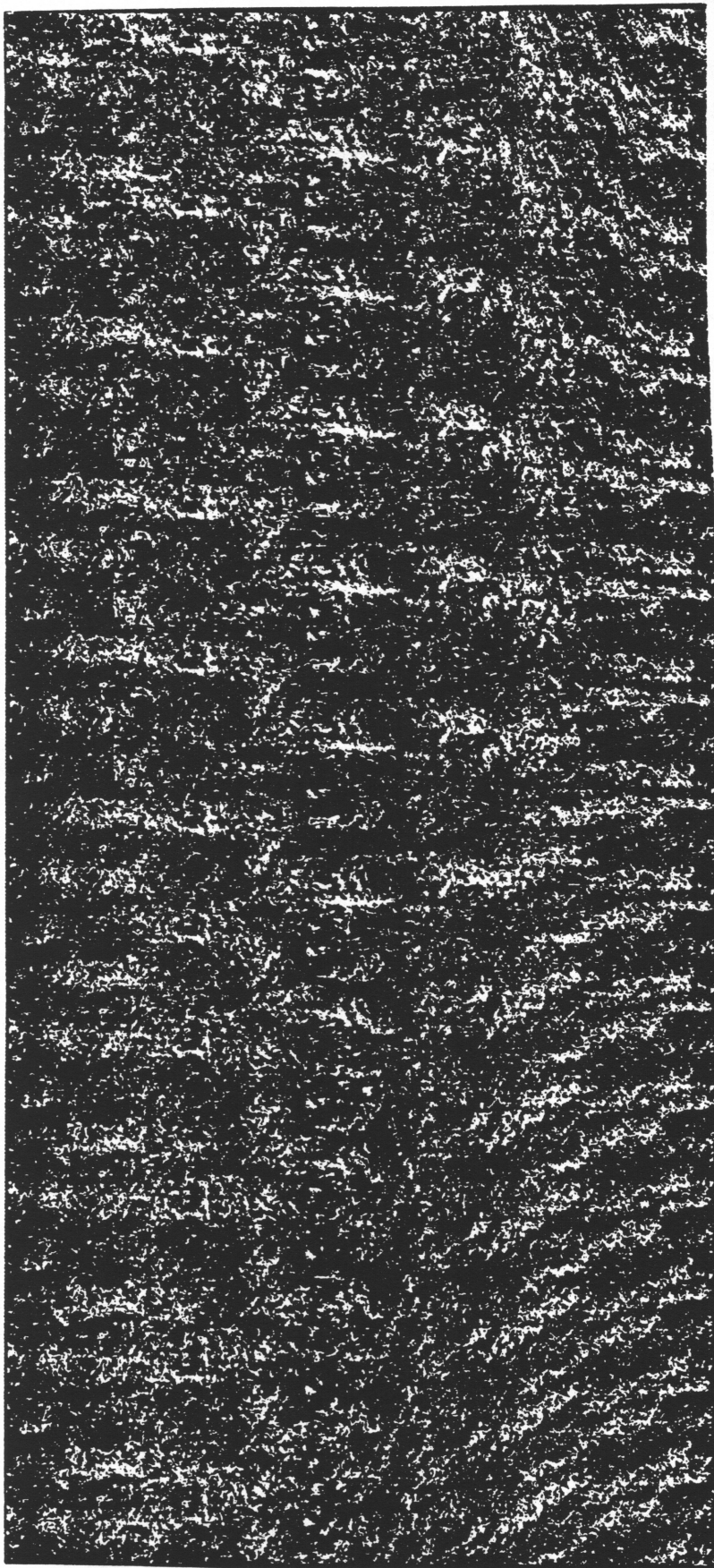
Both these machines are surplus
 to my needs as I own two other
 512K CoCos.

Please notify me privately on
 netmail @ 1:114/36 or via
 Internet to:
 phxken@nighthawk.stat.com
 Snail Mail: Farrell Kenimer
 2601 W. Corrine Dr.
 Phoenix, Az 85029-2579

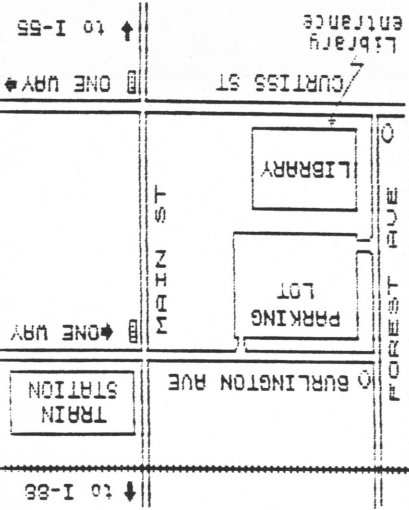
FOR SALE 940304
 %%%
 CoCo3 128K - CoCo3 512K
 Disk DR 0 Disk DR 1 & 3 (DSDD)
 4 Disk Controllers
 2 EPROM burners
 MPI (PAL) Soft case
 For CoCo:
 MODEM 2, LIGHT CONTROLLER
 LINE PRINTER 120
 DIGISECTOR DS-60/69B
 SPEECH SOUND CARTRIDGE
 COCOMAX
 ALL DISK PROGRAMS ALL TAPES
 1 DELUXE JOYSTICK, 4 JOYSTICKS
 MOUSE - GRAPHICS TABLET
 VIDEO INTERFACE
 KINGS QUEST III
 COCO2 64K
 DISK DR 0
 CONTROLLER
 CASS&CABLES 2 JOYSTICKS MPI
 TRS-80 MODEL III (RS)
 48K 2 DISK DRIVES AND ALL
 SOFTWARE TO HERE!!!!
 \$300 TAKES ALL
 BARRY RUCHALSKI 708-742-7775

FOR SALE 940304
 %%%
 YEASU FT101 EX TRANSCEIVER \$250
 5 BAND VERTICAL \$50
 BARRY 708-742-7775

FOR SALE 940304
 %%%
 I have one (1 count'em) Nuvotel
 96424IFX internal fax/modem for
 sale. It does data at 2400bps
 and faxes at 9600bps. I have
 used it for about a year and it
 performs flawlessly. Data side
 has V.42bis compression & error
 correction protocols and MNP
 classes 2,3,4, and 5. Fax is
 group 3 compatible with V.29,
 V.27 ter, V.23, V.22bis, V.22,
 and V.21 recommendations. (That
 means it does a good job). \$30
 gets it. Includes DOS software
 and everything to hookup.
 Mark Hall
 hallmark@netcom.com
 (214)262-8320



THE CHICAGO AREA TIMEX USERS GROUP
 MEETS AT 1:00 PM ON THE SECOND SATURDAY
 OF EVERY MONTH AT 1300 MAPLE STREET IN
 DOWNERS GROVE, ILLINOIS SOUTHWEST OF
 THE PUBLIC LIBRARY.



CHICAGO AREA TIMEX USERS GROUP
 613 PARKSIDE CIRCLE
 STREAMWOOD, ILLINOIS 60107